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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/939,459 | 08/24/2001 | Masayuki Iguchi | FUJH 18.939 | 3658 |

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EXAMINER

SING, SIMON P

ART UNIT PAPER NUMBER

2645

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/939,459 | IGUCHI ET AL. | |
| | Examiner | Art Unit | |
| | Simon Sing | 2645 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,11,13,14,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,10,13 and 16 is/are allowed.
- 6) ☒ Claim(s) 6,7,11,14 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 6, 7, 11, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin US 6,690,938 in view of Willars et al. US 6,889,050.

1.1 Regarding claims 6, 11, 14 and 17, Chin discloses a system and method for reducing drop call in a wireless communications system during a soft handoff in figure 1. Chin teaches that during the soft handoff, there are a fundamental channel (first channel or voice channel with fixed bandwidth) and supplemental channels (second channel with variable bandwidth; column 6, lines 44-46, 66-67; column 7, lines 1-4), and the supplemental channel symmetry must be achieved in soft handoff (column 6, lines 57-65). Chin further teaches:

sending a resource a request (CRMRLM_ResouceRelReq) for a supplemental channel from a base station controller (BSC) 14 to base station transceivers (BTS) (column 7, lines 47-49, 53-59; figure 3);

receiving a response from the BTS (column 7, lines 47-49, 59-67; column 8, lines 1-4); and

setting the channel bandwidth of the second channel as requested (column 8, lines 11-22).

Chin teaches setting the channel bandwidth of the second channel, but fails to teach that when available channel bandwidth is less than requested, then setting the second channel bandwidth to the available channel bandwidth.

However, Willars discloses a method and system for allocating transmission data rates (bandwidths) in handover (handoff) in figures 2 and 3. Willars teaches that during handoff (from BS2 to BS3 in figure 3; column 7, lines 24-56), is lower transmission data rate is assigned to BS2 and BS3 if RNC 2 only has lower rate available due to traffic congestion (figure 5; column 8, lines 33-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chin's reference, with the teaching of Willars, so that in case a target BTS did not have enough channel bandwidth as requested, the channel bandwidth of the second channel would have been set to a lower bandwidth available at the target BST second for all base stations in a soft handoff to maintain channel symmetry. The motivation for this modification was to enhance the flexibility of handoff and to reduce drop-off rate due to lower available channel bandwidth in a target base station.

1.2 Regarding claim 7, Chin teaches setting the second channel bandwidth as established with a source base station (column 7, lines 47-52; column 8, lines 11-22).

Allowable Subject Matter

2. Claims 5, 10, 13 and 16 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

The current invention claims a method and system for activating a second channel and setting the second channel bandwidth during a handoff for a mobile station. The channel bandwidth is set to the least available channel bandwidth polled from a plurality of base stations, while the mobile station is communicating with the plurality of base stations through a first channel.

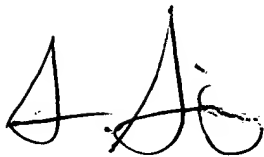
Chin (US 6,699,938) teaches communications between a mobile station 26, base stations 18 and 20, and base station controller 14 in figure 1 (column 5, lines 15-27). Chin further teaches during a soft handoff, no additional supplemental channels are allocated (column 47-52). Chin fails to teach activating a second channel during hand-off, and there is no motivation to set the channel bandwidth to the least available of a plurality of base stations since the mobile station may be handed to a base station with higher available channel bandwidth.

Conclusion

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is 571-272-7545. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM.


Art Unit: 2645

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.



S. Sing

01/06/2006



FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600